Claims

1. A silencer for an exhaust system comprising a fluid outlet and control means for opening and closing the fluid outlet .

2. A silencer according to claim 1 arranged such that when the exhaust system is in use, the fluid outlet is opened by the control means and when the exhaust system is idle, the fluid outlet is closed by the control means..

3. A silencer according to claim 1 arranged such that when the exhaust system is in use, the fluid outlet is closed by the control means and when the exhaust system is idle, the fluid outlet is opened by the control means .

4. A silencer according to any preceding claim wherein the fluid outlet is an aperture formed in the casing of the silencer.

5. A silencer according to any preceding claim wherein the fluid outlet is a self-tapping plug.

6. A silencer according to any preceding claim wherein the control means comprises temperature dependent control means arranged to open and close the fluid outlet in dependence on the temperature of the silencer.

7. A silencer according to claim 6 wherein the temperature dependent control means comprises a bi-metallic strip.

8. A silencer according to claim 4 wherein the control means comprises a plug for closing the aperture.

9. A silencer according to any preceding claim wherein the control means is provided adjacent an internal surface of the silencer.

10. A silencer according to any one of claims 1 to 8 wherein the control means is provided adjacent an external surface of the silencer.

11. A silencer according to any preceding claim when dependent on claim 7 wherein the bi-metallic strip is held at one end such that a free end of the bi-metallic strip is movable by varying the temperature of the bi-metallic strip.

12. A silencer according to claim 11 wherein the bi-metallic strip is

substantially straight.

13. A silencer according to claim 11 wherein the bi-metallic strip is arched.

14. A silencer according to any preceding claim further comprising a second bi-metallic strip.

15. A silencer according to claim 14 wherein the second bi-metallic strip is attached to the first bi-metallic strip at at least one point.

16. A silencer according to claim 14 or claim 15 wherein at at least one temperature the second bi-metallic strip is tensioned against the first bi-metallic strip.

17. A silencer according to claim 7 wherein the bi-metallic strip is held in at least two locations such that the bi-metallic strip may arch.

18. A silencer according to claim 17 wherein the control means is arranged such that when the bi-metallic strip is at a first temperature, the bi-metallic strip is substantially flat causing the fluid outlet to be closed and when the bi-metallic strip is at a second temperature the bi-metallic strip is arched causing the fluid outlet to be opened.

19. A silencer according to claim 18 wherein the first temperature is higher than the second temperature.

20. A silencer according to claim 18 wherein the second temperature is higher than the first temperature.

21. A silencer according to any preceding claim comprising a cover to protect the control means.

22. A silencer according to claim 21 wherein the cover comprises a bi-metallic cover strip.

23. A silencer according to claim 22 arranged such that the bi-metallic cover strip adopts a flatter configuration when the fluid outlet is closed and a more arched configuration when the fluid outlet is open.

24. A method of adapting a silencer for an exhaust system, comprising the

steps of:

providing the silencer with a fluid outlet; and

providing silencer control means for opening and closing the fluid outlet.

25. A method according to claim 24 further comprising the step of arranging the control means such that when the exhaust system is in use, the fluid outlet is opened by the control means and when the exhaust system is idle, the fluid outlet is closed by the control means.

26. A method according to claim 24 further comprising the step of arranging the control means such that when the exhaust system is in use, the fluid outlet is closed by the control means and when the exhaust system is idle, the fluid outlet is opened by the control means.

27. A method according to any one of claims 22 to 26 wherein the step of providing the silencer with a fluid outlet comprises the step of forming an aperture in the casing of the silencer.

28. A method according to any one of claims 22 to 27 wherein the step of providing the silencer with a fluid outlet comprises the step of inserting a self-tapping plug.

29. A method according to any one of claims 24 to 28 wherein the step of providing the silencer with control means comprises the step of providing temperature dependent control means arranged to open and close the fluid outlet in dependence on the temperature of the silencer.

30. A method according to claim 29 wherein the temperature dependent control means comprises a bi-metallic strip.

31. A method according to claim 27 wherein the control means comprises a plug for closing the aperture.

32. A method according to any one of claims 24 to 31 comprising the step of providing the control means adjacent an internal surface of the silencer.

33. A method according to any one of claims 24 to 31 wherein including the step of providing control means adjacent an external surface of the silencer.

34. A method according to any preceding claim when dependent on claim 30 wherein the bi-metallic strip is held at one end such that a free end of the bi-metallic strip is movable by varying the temperature of the bi-metallic strip.

35. A method according to claim 34 wherein the step of providing a bi-metallic strip is the step of providing a substantially straight bi-metallic strip.

36. A method according to claim 34 wherein the step of providing a bi-metallic strip is the step of providing an arched bi-metallic strip.

37. A silencer according to any one of claims 24 to 36 further comprising the step of providing a second bi-metallic strip.

38. A method according to claim 37 comprising the step of attaching the second bi-metallic strip to the first bi-metallic strip at at least one point.

39. A method according to claim 37 or 38 comprising the step of tensioning the second bi-metallic strip against the first.

40. A method according to claim 30 wherein the bi-metallic strip is held in at least two locations such that the bi-metallic strip may arch.

41. A method according to claim 40 comprising the step of arranging the control means such that when the bi-metallic strip is at a first temperature, the bi-metallic strip is substantially flat causing the fluid outlet to be closed and when the bi-metallic strip is at a second temperature the bi-metallic strip is arched causing the fluid outlet to be opened.

42. A method according to claim 41 wherein the first temperature is higher than the second temperature.

43. A method according to claim 41 wherein the second temperature is higher than the first temperature.

44. A method according to any one of claims 24 to 43 comprising the step of providing a cover to protect the control means.

45. A method according to claim 44 wherein the step of providing a cover comprises the step of providing a bi-metallic cover strip.

46. A method according to claim 45 comprising the step of arranging the silencer such that the bi-metallic strip cover adopts a flatter configuration when the fluid outlet is closed and a more arched configuration when the fluid outlet is open.